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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,320	12/18/2001	Shinichi Tsumori	M2047-35	6688

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EXAMINER	
PEZZLO, JOHN	
ART UNIT	**PAPER NUMBER**
2662	

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,320	TSUMORI ET AL.	
	Examiner	Art Unit	
	John Pezzlo	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 18 December 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12/23/03, 3/19/02.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoichi et al. (JP 2000-209228) hereinafter Yoichi in view of Subbiah et al., "User Multiplexing in RTP payload between IP Telephony Gateways" hereinafter Subbiah.

1. Regarding claims 1 and 10 and 19 – Yoichi discloses a multiplexing means, refer to Figure 2 callout 3 and page 2 paragraph [0011].

Yoichi discloses said multiplexing means including means for sending to an IP network a multiplexed packet, refer to Figure 2 and page 2 paragraphs [0011] to [0017].

Yoichi discloses said multiplexed packet including a plurality of IP packets from terminals which are under command of said multiplexing means, refer to Figure 3 and page 2 paragraphs [0018] and [0019].

Yoichi discloses fragmentation means (demultiplexer, Figure 2 callout 8) for fragmenting said multiplexed packet received through said IP network into a plurality of IP packets and for

transferring said plurality of IP packets to terminals which are under command of said fragmentation means, refer to Figures 2 and 3 and page 2 paragraphs [0020] and [0021].

Yoichi does not expressly disclose said multiplexing means including means for acquiring, with respect to a destination terminal, an identifier of said destination terminal and an IP address of a fragmentation means which has said destination terminal under its command, and a beginning of said multiplexed packet including said IP address of said fragmentation means which has said destination terminal under its command, and said multiplexed packet includes said identifier of said destination terminal and a portion removing an IP header from an IP packet and said identifier is smaller than that of said IP header.

Subbiah discloses multiplexing multiple short IP packets into a longer IP packet and replacing the IP header with an ID code (CID) wherein the CID is shorter than the IP header, refer to pages 2 and 3 sections 2 and 2.1.

At the time of the invention, it would have been obvious to combine Yoichi with Subbiah to provide said multiplexing means including means for acquiring, with respect to a destination terminal, an identifier of said destination terminal and an IP address of a fragmentation means which has said destination terminal under its command, and a beginning of said multiplexed packet including said IP address of said fragmentation means which has said destination terminal under its command, and said multiplexed packet includes said identifier of said destination terminal and a portion removing an IP header from an IP packet and said identifier is smaller than that of said IP header. The suggestion/motivation for doing so would have been that Yoichi discloses a fixed length header, callout 21 in Figure 3, refer to page 2 paragraph [0021], and providing multiplexing of short IP packets to form longer packets. Therefore by providing CID

codes for each IP packet and replacing the IP header a more compact header is utilized, reducing the overhead of a long header and providing more throughput for additional multiplexing of IP packets.

2. Regarding claims 2 and 11 – Yoichi does not expressly disclose said multiplexing means including means for adding said identifier of said destination terminal after said IP address of said fragmentation means which has said destination terminal under its command, and then for adding said portion removing said IP header from said IP packet, to thereby prepare said multiplexed packet.

Subbiah discloses multiplexing multiple short IP packets into a longer IP packet and replacing the IP header with an ID code (CID) wherein the CID is shorter than the IP header, refer to pages 2 and 3 sections 2 and 2.1.

At the time of the invention, it would have been obvious to combine Yoichi with Subbiah to provide said multiplexing means including means for adding said identifier of said destination terminal after said IP address of said fragmentation means which has said destination terminal under its command, and then for adding said portion removing said IP header from said IP packet, to thereby prepare said multiplexed packet. The suggestion/motivation for doing so would have been that Yoichi discloses a fixed length header, callout 21 in Figure 3, refer to page 2 paragraph [0021], and providing multiplexing of short IP packets to form longer packets. Therefore by providing CID codes for each IP packet and replacing the IP header a more compact header is utilized, reducing the overhead of a long header and providing more throughput for additional multiplexing of IP packets.

3. Regarding claims 3 and 12 - Yoichi discloses said multiplexing means terminates preparation of a multiplexed packet after a predetermined period of time has elapsed, refer to page 2 paragraphs [0011] and [0012].

4. Regarding claims 4 and 5 and 13 and 14 - Yoichi discloses said multiplexing means terminates preparation of a multiplexed packet when a record length of said multiplexed packet being prepared exceeds a predetermined length, refer to page 2 paragraphs [0011] and [0012].

5. Regarding claims 6, 7, 8, 9, 15, 16, 17, and 18 – Yoichi does not expressly disclose a multiplexing reference table in said multiplexing means, said multiplexing reference table associates, with respect to said destination terminal, an IP address of said destination terminal, an identifier of said destination terminal and said IP address of said fragmentation means which has said destination terminal under its command; said multiplexing means, using said multiplexing reference table, includes means for acquiring said identifier of said destination terminal and said IP address of said fragmentation means which has said destination terminal under its command, based on said IP address of said destination terminal.

Subbiah discloses a multiplexing reference table in said multiplexing means, said multiplexing reference table associates, with respect to said destination terminal, an IP address of said destination terminal, an identifier of said destination terminal and said IP address of said fragmentation means which has said destination terminal under its command; said multiplexing means, using said multiplexing reference table, includes means for acquiring said identifier of said destination terminal and said IP address of said fragmentation means which has said

destination terminal under its command, based on said IP address of said destination terminal, refer to page 6 section 3.1 and Table 1.

At the time of the invention, it would have been obvious to an ordinary person of skill in the art to combine Yoichi with Subbiah to provide a multiplexing reference table in said multiplexing means, said multiplexing reference table associates, with respect to said destination terminal, an IP address of said destination terminal, an identifier of said destination terminal and said IP address of said fragmentation means which has said destination terminal under its command; said multiplexing means, using said multiplexing reference table, includes means for acquiring said identifier of said destination terminal and said IP address of said fragmentation means which has said destination terminal under its command, based on said IP address of said destination terminal.

The suggestion/motivation for doing so would have been that routing tables are needed to associate source and destination terminal information, in order to route a packet from the source to the destination and Yoichi discloses routing IP packets which have been multiplexed. Therefore, the benefit of utilizing a multiplexing reference table is a compact way of associating the CID with the terminal and the source gateway router, which has responsibility for routing the packet from the source terminal to the destination gateway.

Yoichi does not expressly disclose a fragmentation (demultiplexer) reference table in said fragmentation means, said fragmentation means, using said fragmentation reference table includes means for associating, with respect to a terminal which is under command of said fragmentation means, an IP address of said terminal, an identifier of said terminal and said IP address of said fragmentation means, and using said fragmentation reference table and based on

an identifier contained in said multiplexed packet which is received, said fragmentation means includes means for acquiring an IP address of a corresponding terminal, and for preparing and transferring an IP packet to the destination terminal via the destination gateway.

Subbiah discloses a fragmentation (demultiplexer) reference table in said fragmentation means, said fragmentation means, using said fragmentation reference table includes means for associating, with respect to a terminal which is under command of said fragmentation means, an IP address of said terminal, an identifier of said terminal and said IP address of said fragmentation means, and using said fragmentation reference table and based on an identifier contained in said multiplexed packet which is received, said fragmentation means includes means for acquiring an IP address of a corresponding terminal, and for preparing and transferring an IP packet, refer to page 6 section 3.1 and Table 1.

The suggestion/motivation for doing so would have been that routing tables are needed to associate source and destination terminal information, in order to route a packet from the source to the destination and Yoichi discloses routing IP packets which have been multiplexed. Therefore, the benefit of utilizing a demultiplexing reference table in the destination gateway is a compact way of associating the CID with the terminal and the router, which has responsibility for routing the packet to the destination terminal.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Hara et al. (US 6,560,221 B1) discloses a communication path control device, communication path control method, and communication path control unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (571) 272-3090. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C.

or faxed to:

(571) 272-8300

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Jefferson Building

2A15

500 Dulany Street

Alexandria, VA, 22313.

John Pezzlo

6 October 2005

JOHN PEZZLO
PRIMARY EXAMINER